

**STATE OF MISSISSIPPI
AND FEDERALLY ENFORCEABLE
AIR POLLUTION CONTROL
PERMIT**

**TO OPERATE AIR EMISSIONS EQUIPMENT AT A
SYNTHETIC MINOR SOURCE**

THIS CERTIFIES THAT

PG Technologies LLC
135 Technology Boulevard
Ellisville, Mississippi
Jones County

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with the Federal Clean Air Act and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), the regulations and standards adopted and promulgated thereunder, and the State Implementation Plan for operating permits for synthetic minor sources.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD



AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: October 7, 2026

Permit No.: 1360-00158

Effective Date: As specified herein.

Expires: September 30, 2031

Section 1.

A. GENERAL CONDITIONS

1. This permit is for air pollution control purposes only.
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D.)
2. This permit is a Federally-approved permit to operate a synthetic minor source as described in 11 Miss. Admin. Code Pt. 2, R. 2.4.D.
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.4.D.)
3. Any activities not identified in the application are not authorized by this permit.
(Ref.: Miss. Code Ann. 49-17-29 1.b)
4. The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for constructing or operating without a valid permit.
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(5).)
5. The issuance of a permit does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities.
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(7).)
6. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state.
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(a).)
7. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(c).)
8. The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their authorized representatives, upon the presentation of credentials:
 - a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit, and

- b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emission.

(Ref.: Miss. Code Ann. 49-17-21)

- 9. Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control.

(Ref.: Miss. Code Ann. 49-17-39)

- 10. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D(7).)

- 11. This permit does not authorize a modification as defined in Regulation 11 Miss. Admin. Code Pt. 2, Ch.2., "Permit Regulations for the Construction and/or Operation of Air Emission Equipment." A modification may require a Permit to Construct and a modification of this permit. Modification is defined as "Any physical change in or change in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:

- a. Routine maintenance, repair, and replacement;
- b. Use of an alternative fuel or raw material by reason of an order under Sections 2(a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;
- c. Use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;
- d. Use of an alternative fuel or raw material by a stationary source which:
 - (1) The source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I, or 40 CFR 51.166; or
 - (2) The source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I, or 40 CFR 51.166;

- e. An increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I or 40 CFR 51.166; or
- f. Any change in ownership of the stationary source.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.C(15).)

B. GENERAL OPERATIONAL CONDITIONS

- 1. Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in Regulation, 11 Miss. Admin. Code Pt. 2, "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.10.)

- 2. Any diversion from or bypass of collection and control facilities is prohibited, except as provided for in 11 Miss. Admin. Code Pt. 2, R. 1.10., "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants."

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.)

- 3. Solids removed in the course of control of air emissions shall be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits.

(Ref.: Miss. Code Ann. 49-17-29 1.a(i and ii))

- 4. Except as otherwise specified herein, the permittee shall be subject to the following provisions with respect to upsets, startups, and shutdowns.

a. Upsets

- (1) For an upset defined in 11 Miss. Admin. Code Pt. 2, R. 1.2., the Commission may pursue an enforcement action for noncompliance with an emission standard or other requirement of an applicable rule, regulation, or permit. In determining whether to pursue enforcement action, and/or the appropriate enforcement action to take, the Commission may consider whether the source has demonstrated through properly signed contemporaneous operating logs or other relevant evidence the following:

- (i) An upset occurred and that the source can identify the cause(s) of the upset;
- (ii) The source was at the time being properly operated;
- (iii) During the upset the source took all reasonable steps to minimize levels of emissions that exceeded the emission standard or other requirement of an applicable rule, regulation, or permit;

- (iv) That within 5 working days of the time the upset began, the source submitted a written report to the Department describing the upset, the steps taken to mitigate excess emissions or any other noncompliance, and the corrective actions taken and;
 - (v) That as soon as practicable but no later than 24 hours of becoming aware of an upset that caused an immediate adverse impact to human health or the environment beyond the source boundary or caused a general nuisance to the public, the source provided notification to the Department.
 - (2) In any enforcement proceeding by the Commission, the source seeking to establish the occurrence of an upset has the burden of proof.
 - (3) This provision is in addition to any upset provision contained in any applicable requirement.
 - (4) These upset provisions apply only to enforcement actions by the Commission and are not intended to prohibit EPA or third-party enforcement actions.
- b. Startups and Shutdowns (as defined by 11 Miss. Admin. Code Pt. 2, R. 1.2.)
- (1) Startups and shutdowns are part of normal source operation. Emission limitations apply during startups and shutdowns unless source specific emission limitations or work practice standards for startups and shutdowns are defined by an applicable rule, regulation, or permit.
 - (2) Where the source is unable to comply with existing emission limitations established under the State Implementation Plan (SIP) and defined in this regulation, 11 Mississippi Administrative Code, Part 2, Chapter 1, the Department will consider establishing source specific emission limitations or work practice standards for startups and shutdowns. Source specific emission limitations or work practice standards established for startups and shutdowns are subject to the requirements prescribed in 11 Miss. Admin. Code Pt. 2, R. 1.10.B(2)(a) through (e).
 - (3) Where an upset as defined in Rule 1.2 occurs during startup or shutdown, see the upset requirements above.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.)

5. Compliance Testing: Regarding compliance testing:

- a. The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and Regulations or this permit and in units of mass per time.
- b. Compliance testing will be performed at the expense of the permittee.
- c. Each emission sampling and analysis report shall include but not be limited to the following:
 - (1) Detailed description of testing procedures;

- (2) Sample calculation(s);
- (3) Results; and
- (4) Comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.6.B(3), (4), and (6).)

C. PERMIT RENEWAL / MODIFICATION / TRANSFER / TERMINATION

1. For renewal of this permit, the applicant shall make application not less than one-hundred eighty (180) days prior to the expiration date of the permit substantiated with current emissions data, test results or reports or other data as deemed necessary by the Mississippi Environmental Quality Permit Board. If the applicant submits a timely and complete application pursuant to this paragraph and the Permit Board, through no fault of the applicant, fails to act on the application on or before the expiration date of the existing permit, the applicant shall continue to operate the stationary source under the terms and conditions of the expired permit, which shall remain in effect until final action on the application is taken by the Permit Board. Permit expiration terminates the source's ability to operate unless a timely and complete renewal application has been submitted.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.8.)

2. The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee shall furnish such records to the DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(d).)

3. The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for a permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(b).)

4. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to:
 - a. Persistent violation of any terms or conditions of this permit.
 - b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

- c. A change in federal, state, or local laws or regulations that require either a temporary or permanent reduction or elimination of previously authorized air emission.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.C.)

- 5. This permit may only be transferred upon approval of the Mississippi Environmental Quality Permit Board.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.16.B.)

SECTION 2 EMISSION POINT DESCRIPTION

The permittee is authorized to operate air emissions equipment, as described in the following table.

Emission Point	Facility Equipment ID	Facility Control ID	Description
AA-100	-	-	Facility-wide (PG Technologies, LLC)
AA-001	RGB-1 AGB-2 RGB-2 AGB-1 MGB-1 RGB-4 MGB-4 MGB-3 AGB-3 RGB-3 MGB-2 AGB-4 AGB-5 MGB-5 AGB-6 RGB-5 AGB-WJ MGB-6 RGB-6 AGB-7 RGB-7 RGB-8 GB-23 GB-24 GB-25 GB-26	DC-RGB-1 DC-AGB-2 DC-RGB-2 DC-AGB-1 DC-MGB-1 DC-RGB-4 DC-MGB-4 DC-MGB-3 DC-AGB-3 DC-RGB-3 DC-MGB-2 DC-AGB-4 DC-AGB-5 DC-MGB-5 DC-AGB-6 DC-RGB-5 DC-AGB-WJ DC-MGB-6 DC-RGB-6 DC-AGB-7 DC-RGB-7 DC-RGB-8 DC-23 DC-24 DC-25 DC-26	<u>Grit Blasters</u> – Twenty-six (26) abrasive blasting units that are used to prepare the surface of parts to undergo various coating operations. Various abrasive blasting media may be used (e.g., aluminum oxide, glass peen, calcined aluminum). A corresponding dust collector equipped with a filter rated MERV 16 or higher controls emissions from each individual grit blaster.
AA-002	HV-001 HV-002	DC-HV001 DC-HV002	<u>HV Coating Operation</u> – Two (2) coating stations that apply a powder-based coating onto parts via thermal spraying. A corresponding dust collector equipped with a filter rated MERV 16 or higher controls emissions from each individual coating station.
AA-003	EC005 EC006 EC008 EC009 EC010 EC011 EC012 EC013	DC-EC005 DC-EC006 DC-EC008 DC-EC009 DC-EC010 DC-EC011 DC-EC012 DC-EC013	<u>EC Coating Operation</u> – Eight (8) coaters with corresponding dust collectors equipped with a filter rated MERV 16 or higher to control emissions from each individual coater.
AA-004	SS001	DC-SS01	<u>SS Coating Operation</u> – A coating booth that deposits a slurry mixture onto the surface of parts. A corresponding dust collector equipped with a filter rated MERV 16 or higher controls emissions from the coating booth.
AA-005	VF001 through VF010	-	<u>VF Coating Operation</u> – Ten (10) coating stations in which a metal-containing coating is deposited onto parts. A wet scrubber controls hydrogen fluoride (HF) and particulate matter (PM) emissions.

Emission Point	Facility Equipment ID	Facility Control ID	Description
AA-006	PA001 through PA007	-	<u>PA Coating Operation</u> – Seven (7) coating stations that precoat metal parts using a series of rinse tanks and metal-containing salt tanks. Each tank is electrically charged at 7 amps each for platinum plating purposes. Emissions are uncontrolled. (PA001 – PA004, 3 tanks each; PA005, 4 tanks; and PA006 and PA007, 3 tanks each).
AA-007	N001 N002	-	<u>Mask Coating Operation</u> – Two (2) coating stations in which a masking agent is applied to metal parts to prevent certain areas from being coated. Emissions are uncontrolled.
AA-008	P001	DC-P001	<u>P Coating Operation</u> – A coating station that applies a powder-based coating onto parts via thermal spraying. A dust collector equipped with a filter rated MERV 16 or higher controls emissions from the coating station.
AA-009	HY001	DC-HY001	<u>HY Coating Operation</u> – A coating station that applies a powder-based coating onto parts via thermal spraying. A dust collector equipped with a filter rated MERV 16 or higher controls emissions from the coating station.
AA-010	S001 S002	DC-S001 DC-S002	<u>S Coating Operation</u> – Two (2) coating stations that apply a wet, powder-based coating onto parts. A corresponding dust collector equipped with a carbon filter rated MERV 16 or higher controls emissions from each coating station.
AA-011	NgTBC	-	<u>NgTBC Coating Operation</u> – A NgTBC coating process that dabs Aluminum Nitrate onto parts. The parts are then cured in three (3) electric ovens. Emissions are uncontrolled.
AA-012	A-1 A-2	-	<u>Stripping Operation</u> – A dip tank at A-1 and two (2) dip tanks at A-2 are used to remove the coatings from defective parts. Emissions are uncontrolled.
AA-013	D001 through D005	-	<u>Degreasing Operations</u> – Five (5) degreasing units that remove fluids and oils from parts prior to coating. Emissions are uncontrolled.
AA-014a	-	-	<u>Emergency Generator No. 1</u> - 603 HP (450 Kw/4.8 MMBtu/hr) diesel-fired, compression-ignition reciprocating internal combustion engine (CI RICE) (Model Year is 2012 and the displacement is <10 L / cylinder)
AA-014b	-	-	<u>Emergency Generator No. 2</u> – 1,340 HP (1,000 kW/9.38 MMBtu/hr) diesel-fired, CI RICE (Model Year is 2017 and the displacement is <10 L / cylinder)
AA-014c	-	-	<u>Fire Pump No. 1</u> – 130 HP diesel-fired CI RICE (Model Year 2018 and displacement < 10 L/cylinder)
AA-015	-	-	<u>Natural Gas-Fired Equipment</u> - Air Handling Units [AHU-3 through AHU-10] – Two (2) have a rated heat input capacity of 0.7 MMBtu/hr and six (6) with a rated heat input capacity of less than 1 MMBtu/hr - Rooftop Air Handling Units [RTU-1 through RTU-22] – Sixteen (16) have a rated capacity of 0.85 MMBtu/hr each, four (4) have a rated heat capacity of 2.468 MMBtu/hr each, one (1) with a rated heat capacity of 1.67 MMBtu/hr, and one (1) with a rated heat capacity of 0.7 MMBtu/hr - Gas Heaters [DOAS-01] – One (1) with a rated heat input capacity of 0.174 MMBtu/hr and one (1) with a rated heat input capacity of 0.279 MMBtu/hr - Five (5) Boilers with a maximum heat input of 0.63MMBtu/hr each. The boilers provide heat to the Rinse and Q-Salt Tanks (Emission Point AA-006)
AA-015a	-	-	<u>Emergency Generators</u> - Two (2) Emergency Generators [EG-3 and EG-4] with a maximum heat input capacity of 0.44 MMBtu/hr (42 HP/31 kW) each

Emission Point	Facility Equipment ID	Facility Control ID	Description
AA-016	-	-	<u>Miscellaneous Activities</u> • Met Lab • Maintenance Welding • Maintenance Metal Working • Paved Road Emissions • 3D Printing Station • Five (5) Dry Ice Abrasive Blasters • Maintenance Grit Blasting • Wet Blasting
AA-017	LA001	HF-LA001	<u>Laser Ablation</u> – A laser ablation system used for cleaning coating residues from tools and equipment. The unit operates as a fully enclosed process in which a laser removes residual coating materials from metal surfaces. The removed material is entrained in an air stream and directed to a high-efficiency particulate air (HEPA) filtration system.

SECTION 3 EMISSION LIMITATIONS AND STANDARDS

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limitation/Standard
AA-100 (Facility-Wide)	11 Miss. Admin. Code Pt. 2, R. 1.3.A(1) and (2).	3.1	Opacity (Smoke)	≤ 40%
	11 Miss. Admin. Code Pt. 2, R. 1.3.B.	3.2	Opacity	
	11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).	3.3	PM (filterable)	$E = 4.1 \times p^{0.67}$
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). (Title V Avoidance Limits)	3.4	PM ₁₀ /PM _{2.5} (filterable + condensable)	≤ 99.0 TPY determined on a rolling 12-month total basis
		3.5	HAP	≤ 9.0 TPY for Individual HAP ≤ 24.0 TPY for Total HAP Both determined on a rolling 12-month total basis
AA-001 AA-003 AA-004 AA-010	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). (PSD Avoidance Limit)	3.6	PM (filterable)	Operating requirements for the dust collectors
AA-002 AA-008 AA-009	40 CFR 63, Subpart WWWW NESHAP: Area Source Standards for Plating and Polishing Operations 40 CFR 63.11504(a)(1)(iv), (2), and (3), 63.11505(a)(2) and (3) and (c), 63.11506(c), 63.11508(b), and Table 1, Subpart WWWW	3.7	HAP	Applicability
AA-014a AA-014b AA-014c AA-015 AA-015a	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.8	PM (filterable)	≤ 0.6 lb/MMBtu per hour
AA-014a AA-014b AA-014c AA-015a	40 CFR 63, Subpart ZZZZ NESHAP for Stationary Reciprocating Internal Combustion Engines 40 CFR 63.6580, 63.6585, 63.6590(a)(2)(iii) and (c)(1), and Table 8, Subpart ZZZZ	3.9	HAP	Applicability
AA-014a AA-014b AA-014c	40 CFR 60, Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines 40 CFR 60.4200(a)(2) and Table 8, Subpart IIII	3.10	NMHC+NO _x CO PM (filterable)	Applicability
	40 CFR 60.4211(f)(1)-(3), Subpart IIII	3.11		Operating requirements

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limitation/Standard
AA-014a AA-014b AA-014c	40 CFR 60.4207(b), Subpart IIII and 40 CFR 1090.305(b) and (c), Subpart D	3.12	SO ₂ (Diesel fuel requirements)	Maximum sulfur content of 15 ppm AND Minimum cetane index of 40 OR maximum aromatic content of 35 volume percent
AA-014a AA-014b	40 CFR 60.4205(b), 60.4202(a)(2), 60.4206 and 60.4211(a)(1) and (2) and (c), Subpart IIII, Table 2 to Appendix I, 40 CFR 1039, and 40 CFR 1039.105(b), Subpart B	3.13	NMHC+NO _x	≤ 6.4 g/kW-hr
			CO	≤ 3.5 g/kW-hr
			PM (filterable)	≤ 0.20 g/kW-hr
			Opacity (Smoke)	≤ 20% during acceleration mode ≤ 15% during lugging mode ≤ 50% during the peaks in either mode
AA-014c	40 CFR 60.4205(c), 60.4206, 60.4211(a)(1) and (2) and (c), and Table 4, Subpart IIII	3.14	NMHC+NO _x	≤ 4.0 g/kW-hr
			CO	≤ 5.0 g/kW-hr
			PM (filterable)	≤ 0.30 g/kW-hr
AA-015a	40 CFR 60, Subpart JJJJ Standards of Performance for Stationary Spark Ignition Internal Combustion Engines 40 CFR 60.4230(a)(4)(iv) and Table 3, Subpart JJJJ	3.15	NO _x CO VOC	Applicability
	40 CFR 60.4233(e), 40.4234, 60.4243(b)(1), and Table 1, Subpart JJJJ	3.16	NO _x	≤ 2.0 g/HP-hr
			CO	≤ 4.0 g/HP-hr
			VOC	≤ 1.0 g/HP-hr
	40 CFR 60.4243(d)(1)-(3), Subpart JJJJ	3.17	Hours of Operation	Operating requirements
AA-015	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.18	SO ₂	≤ 4.8 lb/MMBtu

- 3.1 For Emission Point AA-100 (Facility-Wide), except as otherwise specified or limited herein, the permittee shall not cause or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial, or waste disposal process that exceeds forty percent (40%) opacity.

Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one hour and not to exceed three (3) startups per stack in any twenty-four (24) hour period.

(Ref.:11 Miss. Admin. Code Pt. 2, R. 1.3.A(1) and (2).)

- 3.2 For Emission Point AA-100 (Facility-Wide), the permittee shall, except as otherwise specified or limited herein, the permittee shall not cause or allow the discharge into the ambient air from any point source any air contaminant of such opacity as to obscure an

observer's view to a degree in excess of 40% opacity equivalent to that provided in Condition 3.1. This shall not apply to vision obscuration caused by uncombined water droplets.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.B.)

- 3.3 For Emission Point AA-100 (Facility-Wide), except as otherwise specified, the permittee shall not cause, permit, or allow the emission of particulate matter (PM) in total quantities in any one (1) hour from any manufacturing process, which includes any associated stacks, vents, outlets, or combination thereof, to exceed the amount determined by the relationship:

$$E = 4.1 \times p^{0.67}$$

where "E" is the emission rate in pounds per hour, and "p" is the process weight input rate in tons per hour. Conveyor discharge of coarse solid matter may be allowed if no nuisance is created beyond the property boundary where the discharge occurs.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).)

- 3.4 For Emission Point AA-100 (Facility-Wide), the permittee shall limit the emissions of particulate matter less than 10 microns in diameter (PM₁₀) (filterable and condensable) and particulate matter less than 2.5 microns in diameter (PM_{2.5}) (filterable and condensable) to no more than 99.0 tons per year for each determined on a rolling 12-month total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). [Title V Avoidance Limits])

- 3.5 For Emission Point AA-100 (Facility-Wide), the permittee shall limit the emission of any individual hazardous air pollutant (HAP) to less than or equal to 9.0 tons per year (TPY) and total HAP to less than or equal to 24.0 TPY. Both shall be determined on a rolling 12-month total basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). [Title V Avoidance Limits])

- 3.6 For Emission Points AA-001, AA-003, AA-004, and AA-010, the permittee shall operate all emission capture and control systems (i.e., dust collectors) associated with the process equipment at all times during active operations to minimize the emission of filterable particulate matter. In the event a control system malfunctions or becomes non-operational, the permittee shall cease activity of the associated process equipment until the control system returns to service.

Additionally, each capture and control system shall be operated and maintained in accordance with the manufacturer's specifications and instructions.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). [PSD Avoidance Limits])

- 3.7 Emission Points AA-002, AA-008, and AA-009 are subject to the applicable requirements of the National Emission Standard of Hazardous Air Pollutants (NESHAP): Area Source Standards for Plating and Polishing Operations, 40 CFR 63, Subpart WWWW, and the applicable General Provisions found in 40 CFR 63, Subpart A, as specified in Table 1 of Subpart WWWW. The permittee shall comply with the applicable required management practices and equipment standards at all times.

For purposes of this permit, a “plating and polishing metal HAP” is defined as any compound of cadmium, chromium, lead, manganese, and nickel, or any of these metals in elemental form (with the exception of lead). Any material that does not contain cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal) **OR** does not contain manganese in amounts greater than or equal to 1.0 percent by weight (as the metal) is not considered a plating and polishing metal HAP.

(Ref.: 40 CFR 63.11504(a)(1)(iv), (2), and (3), 63.11505(a)(2) and (3) and (c), 63.11506(c), 63.11508(b), and Table 1, Subpart WWWW)

- 3.8 For Emission Points AA-014a, AA-014b, AA-014c, AA-015, and AA-015a, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than ten (10) million BTU per hour heat input shall not exceed 0.6 pounds per MMBtu per hour heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).)

- 3.9 Emission Points AA-014a, AA-014b, AA-014c, and AA-015a are subject to and shall comply with all applicable requirements in the NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR 63, Subpart ZZZZ and the applicable General Provisions, 40 CFR 63, Subpart A as specified in Table 8 of Subpart ZZZZ.

For the purposes of this permit, Emission Points AA-014a, AA-014b, and AA-014c are considered new compression ignition emergency stationary RICE located at an area source of HAP emissions. Per 40 CFR 63.6590(c)(1), these engines shall meet the requirements of Subpart ZZZZ by complying with the applicable requirements of the Standards of Performance for Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII. No further requirements of Subpart ZZZZ are applicable to these engines.

The two engines associated with Emission Point AA-015a are considered new spark ignition emergency stationary RICE located at an area source of HAP. Per 40 CFR 63.6590(c)(1), these engines shall meet the requirements of Subpart ZZZZ by complying with the applicable requirements of the Standards of Performance for Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ. No further requirements of Subpart ZZZZ are applicable to these engines.

(Ref.: 40 CFR 63.6580, 63.6585, 63.6590(a)(2)(iii) and (c)(1), and Table 8, Subpart ZZZZ)

- 3.10 Emission Points AA-014a, AA-014b, and AA-014c are subject to and shall comply with the applicable requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII, and the applicable General Provisions, 40 CFR 60, Subpart A, as specified in Table 8 of Subpart IIII.

For purposes of this subpart, Emission Points AA-014a and AA-014b are not considered fire pump engines and Emission Point AA-014c is considered a fire pump engine.

(Ref.: 40 CFR 60.4200(a)(2) and Table 8, Subpart IIII)

- 3.11 For Emission Points AA-014a, AA-014b, and AA-014c, the engines shall be considered emergency stationary RICE under Subpart IIII provided the engines only operate in an emergency, during maintenance and testing, and during non-emergency situations for 50 hours per calendar year as described in paragraph (c) below. If the engines do not operate according to the requirements in paragraphs (a) through (c) below, the engines will not be considered an emergency engine under this subpart and shall meet all requirements for non-emergency engines.

- (a) There is no limit on the use of emergency stationary RICE in emergency situations.
- (b) The permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to a maximum of 100 hours per calendar year. The permittee may petition the DEQ for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
- (c) The permittee may operate the emergency stationary RICE up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year for maintenance and testing provided in paragraph (b). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 60.4211(f)(1)-(3), Subpart IIII)

- 3.12 For Emission Points AA-014a, AA-014b, and AA-014c, the permittee shall use diesel fuel that meets the following per gallon requirements:

- (a) Maximum sulfur content of 15 ppm.

- (b) Minimum cetane index of 40 **OR** a maximum aromatic content of 35 volume percent.

(Ref.: 40 CFR 60.4207(b), Subpart IIII, and 40 CFR 1090.305(b) and (c), Subpart D)

- 3.13 For Emission Points AA-014a and AA-014b, the permittee shall operate and maintain each engine such that they achieve the following emission standards for the life of the engine:

- (a) Non-methane hydrocarbon and nitrogen oxides (NMHC+NO_x) ≤ 6.4 g/kW-hr;
- (b) Carbon monoxide (CO) ≤ 3.5 g/kW-hr; and
- (c) Particulate matter (PM) ≤ 0.20 g/kW-hr
- (d) Opacity (from smoke):
 - (1) Twenty percent (20%) during acceleration mode;
 - (2) Fifteen percent (15%) during lugging mode; and
 - (3) Fifty percent (50%) during the peaks in either mode.

The permittee shall comply with the emission standards by purchasing, installing, operating, and maintaining engines that are certified to meet the emission standards. The permittee must operate and maintain these engines according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer and may only change those settings that are permitted by the manufacturer.

(Ref.: 40 CFR 60.4205(b), 60.4202(a)(2), 60.4206 and 60.4211(a)(1) and (2) and (c), Subpart IIII, Table 2 to Appendix I, 40 CFR 1039, and 40 CFR 1039.105(b), Subpart B)

- 3.14 For Emission Point AA-014c, the permittee shall operate and maintain the engine such that it achieves the following emission standards for the life of the engine:

- (a) NMHC+NO_x ≤ 4.0 g/kW-hr;
- (b) CO ≤ 5.0 g/kW-hr; and
- (c) PM ≤ 0.30 g/kW-hr

The permittee shall comply with the emission standards by purchasing, installing, operating, and maintaining engines that are certified to meet the emission standards. The permittee must operate and maintain these engines according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer and may only change those settings that are permitted by the manufacturer.

(Ref.: 40 CFR 60.4205(c), 60.4206, 60.4211(a)(1) and (2) and (c), and Table 4, Subpart IIII)

- 3.15 The engines associated with Emission Point AA-015a are subject to and shall comply with the applicable requirements of the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ, and the applicable General Provisions, 40 CFR 60, Subpart A, as specified in Table 3 of Subpart JJJJ.

(Ref.: 40 CFR 60.4230(a)(4)(iv) and Table 3, Subpart JJJJ)

- 3.16 For Emission Point AA-015a, the permittee shall operate and maintain each engine such that they achieve the following emission standards for the life of the engine:

- (a) $\text{NO}_x \leq 2.0 \text{ g/HP-hr}$;
- (b) $\text{CO} \leq 4.0 \text{ g/HP-hr}$; and
- (c) $\text{VOC} \leq 1.0 \text{ g/HP-hr}$

The permittee shall comply with the emission standards by purchasing, installing, operating, and maintaining an engine certified to meet the emission standards. The permittee must operate and maintain this engine according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer and may only change those settings that are permitted by the manufacturer.

(Ref.: 40 CFR 60.4233(e), 40.4234, 60.4243(b)(1), and Table 1, Subpart JJJJ)

- 3.17 For Emission Point AA-015a, the engines shall be considered emergency stationary ICE under Subpart JJJJ provided the engines only operate in an emergency, during maintenance and testing, and during non-emergency situations for 50 hours per calendar year as described in paragraph (c) below. If the engines do not operate according to the requirements in paragraphs (a) through (c) below, the engines will not be considered an emergency engine under this subpart and shall meet all requirements for non-emergency engines.

- (a) There is no limit on the use of emergency stationary ICE in emergency situations.
- (b) The permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to a maximum of 100 hours per calendar year. The permittee may petition the DEQ for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
- (c) The permittee may operate the emergency stationary RICE up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year for maintenance and testing provided in paragraph (b). Except as provided in 40 CFR 60.4243(d)(3)(i), the 50 hours per

year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 60.4243(d)(1)-(3), Subpart JJJJ)

- 3.18 For fuel burning installations associated with Emission Point AA-015 that produce heat or power by indirect heat transfer (i.e., boilers), the permittee shall not allow the discharge of sulfur oxides in excess of 4.8 pounds (measured as sulfur dioxide) per million BTU heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).)

SECTION 4 WORK PRACTICES

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Work Practice
AA-001 AA-002 AA-003 AA-004 AA-008 AA-009 AA-010	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	4.1	Operating Requirements	Maintain and implement a Preventative Maintenance Plan (PMP)
		4.2		Utilize filter cartridges with a MERV rating of 16 or higher
AA-001 AA-003 AA-004 AA-010		4.3		Maintain the pressure drop across each dust collector within 0.2-5.0 inches of water
AA-002 AA-008 AA-009	40 CFR 63.11507(e) and (f)(2), Subpart WWWW	4.4	HAP	Operate a capture system that collects PM emissions from the thermal spraying and mechanical polishing processes
	40 CFR 63.11507(g)(6), (9), and (12), Subpart WWWW	4.5		Implement management practices

4.1 For Emission Points AA-001, AA-002, AA-003, AA-004, AA-008, AA-009, and AA-010, the permittee shall maintain, implement, and revise (as necessary) the Preventive Maintenance Plan (PMP) found in Appendix A in accordance with the following requirements:

- (a) The PMP shall identify the individual(s) responsible for inspecting, maintaining, and repairing each applicable air pollution control device;
- (b) The PMP shall list and describe the items or conditions that will be inspected and the inspection schedule for each specified item and/or condition. Each inspection shall be conducted at a frequency no less than once every ninety (90) days;
- (c) The PMP shall identify and quantify the replacement parts that will be maintained in inventory for quick replacement;
- (d) The PMP shall specify bi-weekly pressure drop monitoring across each dust collector, as outlined in Conditions 4.3 and 5.5;
- (e) The permittee may be required to revise the PMP following a review by DEQ personnel. Furthermore, the DEQ may require the permittee to revise the PMP whenever a lack of proper maintenance causes or is the primary contributor to an exceedance of any emission limitation; and
- (f) If an applicable source is modified (e.g., process and/or control equipment is added, removed, replaced, or physically changed), the PMP shall be revised to reflect the modification.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)

4.2 For Emission Points AA-001, AA-002, AA-003, AA-004, AA-008, AA-009, and AA-010, the permittee shall utilize filter cartridges that have a certified Minimum Efficiency

Reporting Value (MERV) of at least 16 or higher to minimize emissions of filterable particulate matter and metal HAP.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)

- 4.3 For Emission Points AA-001, AA-003, AA-004, and AA-010, the permittee shall maintain the pressure drop across each dust collector within the range of 0.2 and 5.0 inches of water (H₂O) at all times. This pressure drop range shall be included in the approved PMP.

In the event the measured pressure drop is outside the specified range, the permittee shall implement corrective actions to restore the dust collector to a proper operational status.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)

- 4.4 For Emission Points AA-002, AA-008, and AA-009, for each thermal spraying operation or dry mechanical polishing machine that applies or emits one or more of the plating and polishing metal HAP, the permittee must operate a capture system that collects PM emissions to a fabric, cartridge, or HEPA filter. Such systems shall be operated in accordance with the manufacturer's specifications and operating instructions which must be kept at the facility at all times and in a location where they are easily accessed by the operators.

(Ref.: 40 CFR 63.11507(e) and (f)(2), Subpart WWWWWW)

- 4.5 For Emission Points AA-002, AA-008, and AA-009, the permittee shall implement the following management practices:

- (a) Perform regular repair, maintenance, and preventive maintenance of racks, barrels, and other equipment associated with affected sources.
- (b) Perform general good housekeeping practices, such as regular sweeping or vacuuming, if needed, and periodic washdowns.
- (c) Perform regular inspections to identify leaks and other opportunities for pollution prevention.

(Ref.: 40 CFR 63.11507(g)(6), (9), and (12), Subpart WWWWWW)

SECTION 5 MONITORING AND RECORDKEEPING REQUIREMENTS

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Monitoring/Recordkeeping Requirement
AA-100 (Facility-Wide)	11 Miss. Admin. Code Pt. 2, R. 2.9.	5.1	Recordkeeping	Maintain records for a minimum of five (5) years.
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.2	PM ₁₀ /PM _{2.5} (filterable + condensable)	Calculate and record emissions
		5.3	HAP	Implement and maintain a monitoring plan
AA-001 AA-002 AA-003 AA-004 AA-008 AA-009 AA-010	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.4	PM (filterable)	Install, calibrate, and maintain a pressure gauge Recordkeeping requirements
		5.5	Pressure Drop	Monitor each dust collector bi-weekly per the PMP Recordkeeping requirements
AA-002 AA-008 AA-009	40 CFR 63.11508(d)(1), (4)(i), (ii), (iv), and (v), Subpart WWWWWW	5.6	HAP	Continuous compliance requirements
	40 CFR 63.11509(e), Subpart WWWWWW	5.7		Recordkeeping requirements
AA-014a AA-014b AA-014c AA-015a	40 CFR 60.4209(a) and 60.4214(b), Subpart IIII, and 40 CFR 60.4237(b) and 60.4245(b), Subpart JJJJ	5.8	NMOC+NO _x PM (filterable) CO SO ₂ NO _x VOC	Install non-resettable hour meter and record hours of operation
AA-005	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.9	HAP	Continuously monitor scrubber liquid level

5.1 For Emission Point AA-100 (Facility-Wide), the permittee shall retain all required records, monitoring data, supporting information and reports for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings or other data for continuous monitoring instrumentation, and copies of all reports required by this permit. Copies of such records shall be submitted to MDEQ as required by Applicable Rules and Regulations or this permit upon request.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.9.)

5.2 For Emission Point AA-100 (Facility-Wide), the permittee shall demonstrate compliance with the emission limits specified in Condition 3.4 by calculating the filterable and condensable PM₁₀ and PM_{2.5} emissions in tons on a monthly and rolling 12-month total basis.

Unless otherwise specified herein, the permittee shall maintain all reference data utilized to validate calculated emissions (e.g., operational data, applicable emission factors presented in the corresponding application, engineering judgement determinations, etc.).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

- 5.3 For Emission Point AA-100 (Facility-Wide), the permittee shall implement and maintain a HAP Monitoring Plan (see Appendix B) in order to demonstrate compliance with the HAP limitations specified in Condition 3.5. This plan shall detail how HAP emissions from each applicable source are estimated and what documentation will be maintained for each applicable source.

The HAP Monitoring Plan shall be subject to review and approval by the DEQ. Upon review, the permittee may be required to revise the HAP Monitoring Plan. Furthermore, in the event of an exceedance of the specified HAP limitations, the DEQ may require the permittee to revise the HAP Monitoring Plan.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

- 5.4 For Emission Points AA-001, AA-002, AA-003, AA-004, AA-008, AA-009, and AA-010, the permittee shall install, calibrate, and maintain a pressure gauge on each dust collector in accordance with the manufacturer's specifications and scaled to read inches of water (H₂O).

Additionally, the permittee shall maintain documentation for each dust collector that details any gauge calibration performed, any maintenance (either preventative or corrective) performed on a pressure gauge, and the specifications from the respective manufacturer.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

- 5.5 For Emission Points AA-001, AA-002, AA-003, AA-004, AA-008, AA-009, and AA-010, the permittee shall monitor and record the pressure drop across each dust collector bi-weekly in accordance with the approved PMP in Appendix A.

In the event a pressure drop reading deviates from the range specified in Condition 4.3, the permittee shall maintain documentation that details the duration of time the deviation occurred, why the deviation occurred, and any corrective actions that were taken to restore the pressure drop to the appropriate operating range. For purposes of this permit, a deviation shall be defined as any time the monitored pressure drop falls outside the required pressure range.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

- 5.6 For Emission Points AA-002, AA-008, and AA-009, the permittee shall demonstrate continuous compliance with the management practices and equipment standards in Condition 4.4 in accordance with the following:

- (a) The permittee must always operate and maintain each affected source, including air pollution control equipment.

- (b) The permittee shall operate and maintain the control systems in accordance to the manufacturer's specifications and instructions.
- (c) Following any malfunction or failure of the capture or control devices to operate properly, the permittee must take immediate corrective action to return the equipment to normal operation according to the manufacturer's specifications and operating instructions.
- (d) The permittee must record the results of all control system inspections, deviations from proper operation, and any corrective action(s) taken.
- (e) The manufacturer's operating instructions must be kept at the facility at all times in a location where they can be easily accessed by the operators.

(Ref.: 40 CFR 63.11508(d)(1), (4)(i), (ii), (iv), and (v), Subpart WWWWWW)

5.7 For Emission Points AA-002, AA-008, and AA-009, the permittee shall maintain the following records:

- (a) A copy of the Notification of Compliance Status and all supporting documentation.
- (b) Records on the occurrence and duration of each malfunction of applicable process equipment (or the required air pollution control and monitoring equipment), all required maintenance performed on the air pollution control and monitoring equipment, and all documentation supporting the notifications of compliance status.
- (c) The records necessary to demonstrate continuous compliance with the applicable management practices and equipment standards.

(Ref.: 40 CFR 63.11509(e), Subpart WWWWWW)

5.8 For Emission Points AA-014a, AA-014b, AA-014c, and AA-015a, the permittee shall install a non-resettable hour meter on each engine, if one is not already installed. The permittee shall keep records of the operation of the engines in emergency and non-emergency service that are recorded on the hour meters. The permittee shall record the time of operation and the reason each engine was in operation during that time.

(Ref.: 40 CFR 60.4209(a) and 60.4214(b), Subpart IIII and 40 CFR 60.4237(b) and 60.4245(b), Subpart JJJJ)

5.9 For Emission Point AA-005, the permittee shall monitor and record the scrubber liquid level prior to operation to ensure the scrubber is operating as designed.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

SECTION 6 REPORTING REQUIREMENTS

Emission Point	Applicable Requirement	Condition Number(s)	Reporting Requirement
AA-100 (Facility-Wide)	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.1	Report permit deviations within five (5) working days.
		6.2	Submit certified annual monitoring report.
		6.3	All documents submitted to the DEQ shall be certified by a Responsible Official.
AA-001 AA-002 AA-003 AA-004 AA-008 AA-009 AA-010	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.4	Submit a notification when there is a change to the PMP
AA-002 AA-008 AA-009	40 CFR 63.11509(b)(3), Subpart WWWWWW	6.5	Submit an amended Notification of Compliance Status, if applicable
	40 CFR 63.11509(c)(2)(iii), (6), and (7), and 63.11511, Subpart WWWWWW	6.6	Submit an annual certification of compliance report
AA-014a AA-014b AA-014c AA-015a	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.7	Annual report summarizing hours of operation

6.1 For Emission Point AA-100 (Facility-Wide), except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) working days of the time the deviation began.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

6.2 For Emission Point AA-100 (Facility-Wide), except as otherwise specified herein, the permittee shall submit a certified annual synthetic minor monitoring report postmarked no later than 31st of January for the preceding calendar year. This report shall address any required monitoring specified in the permit. All instances of deviations from permit requirements must be clearly identified in the report. Where no monitoring data is required to be reported and/or there are no deviations to report, the report shall contain the appropriate negative declaration.

Each annual monitoring report shall include the following information:

- (a) The facility-wide emissions of PM (filterable), PM₁₀ (filterable and condensable), PM_{2.5} (filterable and condensable), each individual HAP, and total combined HAP in tons per year for each rolling 12-month period that occurred during the year.

- (b) Any maintenance action(s) performed on a dust collector and any periods of time (including date and duration) in which a dust collector was non-operational.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

- 6.3 Any document required by this permit to be submitted to the DEQ shall contain a certification signed by a responsible official stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

- 6.4 For Emission Points AA-001, AA-002, AA-003, AA-004, AA-008, AA-009, and AA-010, the permittee shall submit a notification to the DEQ no later than fourteen (14) days after the PMP is revised in accordance with Condition 4.1(e), (f), or for any other reason.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

- 6.5 For Emission Points AA-002, AA-008, and AA-009, the permittee shall submit an amended Notification of Compliance Status to the DEQ within thirty (30) days if a change is made to one of the following items that does not result in a deviation.

- (a) The list of affected sources and the plating and polishing metal HAP used in, or emitted by, those sources.
- (b) The description of the capture and emission control systems used to comply with the applicable equipment standards.
- (c) A statement by the permittee as to whether the source is in compliance with the applicable standards or other requirements.

(40 CFR 63.11509(b)(3), Subpart WWWWWW)

- 6.6 For Emission Points AA-002, AA-008, and AA-009, the permittee shall submit an annual certification of compliance report in accordance with Condition 6.2 that contains the following statements:

- (a) Each control system has been operated and maintained in accordance with the manufacturer's specifications and instructions during the reporting period; and
- (b) All applicable management practices have been implemented, as practicable.

If a deviation occurs during the year, the compliance report shall also include a deviation report which includes the details concerning the deviation and any corrective action(s) taken. For purposes of this permit, a deviation is defined as any instance in which the permittee:

- (c) Fails to meet any requirement or obligation established by Subpart WWWWWW including, but not limited to, any equipment standard, management practice, or operation and maintenance requirement;

- (d) Fails to meet any term or condition that is adopted to implement an applicable requirement of Subpart WWWWWW that is in this permit; or
- (e) Fails to meet any equipment standard (including emission and operating limits), management standard, or operation and maintenance requirement in Subpart WWWWWW during startup, shutdown, or malfunction.

(Ref.: 40 CFR 63.11509(c)(2)(iii), (6), and (7), and 63.11511, Subpart WWWWWW)

- 6.7 For Emission Points AA-014a, AA-014b, AA-014c, and AA-015a, the permittee shall report the annual hours that the engines operated in emergency use, included what constituted the emergency, and the annual hours they operated in non-emergency use. The annual hours for each engine shall be submitted for each calendar year in the annual report required by Condition 6.2.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)).

APPENDIX A

PREVENTATIVE MAINTENANCE PLAN (PMP)

PREVENTIVE MAINTENANCE PLAN

PG Technologies LLC

PROJECT #: KA0949.250

PREPARED FOR:
PG Technologies LLC
135 Technology Boulevard
Ellisville, Mississippi 39437

ISSUED:
October 2017

REVISION DATE:
May 2021
August 2026



**PREVENTIVE MAINTENANCE PLAN
POLLUTION PREVENTION EQUIPMENT
PG TECHNOLOGIES LLC
135 TECHNOLOGY BLVD
ELLISVILLE, MISSISSIPPI
AUGUST MACK PROJECT NUMBER KA0949.250**

TABLE OF CONTENTS

INTRODUCTION	1
SOURCE DESCRIPTION	1
IDENTIFICATION OF RESPONSIBLE INDIVIDUALS	2
DUST COLLECTORS	2
Description of Items to be Inspected and Schedule of Inspection	3
Troubleshooting Contingency and Corrective Actions.....	5
EMERGENCY ENGINES AND GENERATORS.....	6
Corrective Actions	7
FEDERAL RULE APPLICABILITY	8
INVENTORY OF REPLACEMENT PARTS.....	9

Tables

Table 1 – Summary of Dust Collectors.....	2
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Appendices

Appendix A – Sample Semi-Annual Inspection Form	
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**PREVENTIVE MAINTENANCE PLAN
POLLUTION PREVENTION EQUIPMENT
PG TECHNOLOGIES LLC
135 TECHNOLOGY BLVD
ELLISVILLE, MISSISSIPPI
AUGUST MACK PROJECT NUMBER KA0949.250**

INTRODUCTION

This Preventive Maintenance Plan (PMP) has been developed to satisfy Permit Condition 4.1 and other associated permit conditions requiring operation, inspection, maintenance, monitoring, and recordkeeping for air emission units and control equipment at the facility. The purpose of the PMP is to (1) identify the individuals responsible for inspecting, maintaining, and repairing the air pollution control equipment located at the source; (2) provide a schedule for and description of the items or conditions that will be inspected; (3) provide troubleshooting contingency and corrective actions procedures; and (4) identify and quantify the control equipment replacement parts which will be maintained in inventory for quick replacement.

SOURCE DESCRIPTION

PG Technologies, LLC (PGT) operations include grit blasting, coating operations, thermal barrier coating operations, natural gas-fired emergency generators, and associated support activities. The pollutants emitted include particulate matter (PM), particulate matter less than ten microns in diameter (PM₁₀), particulate matter less than 2.5 microns in diameter (PM_{2.5}) and metal Hazardous Air Pollutants (HAPs). Air pollution control equipment includes cartridge-style dust collectors, dry filter systems, and associated monitoring equipment. The facility also operates emergency generators subject to applicable NSPS and permit requirements. The numerous cartridge-style dust collectors are used to control PM, PM₁₀, PM_{2.5} and metal HAP emissions from the various processes.

The cartridge filters used in these dust collectors must have a minimum efficiency reporting value (MERV) rating of 16, or higher, as required by the permit.

IDENTIFICATION OF RESPONSIBLE INDIVIDUALS

PGT will have a maintenance manager, who will have overall responsibility for inspecting, monitoring and repairing emission control equipment. The maintenance manager may delegate, at his or her discretion, the specific tasks necessary to comply with this plan (i.e., inspection and/or repair activities) to a PGT employee or an outside contractor.

DUST COLLECTORS

PGT will inspect the operation of its dust collectors on a weekly and semi-annual basis. The dust collectors to be included in this inspection schedule are listed in Table 1. The items to be inspected and frequency of item inspections are provided in the following section.

TABLE 1
Summary of Dust Collectors

Emission Point ID	Dust Collector ID	Controlled Process	Pressure Drop Range (inches H₂O)
AA-001	RBG-1	Grit Blasting Unit	0.2 – 5.0
	AGB-2	Grit Blasting Unit	0.2 – 5.0
	RGB-2	Grit Blasting Unit	0.2 – 5.0
	AGB-1	Grit Blasting Unit	0.2 – 5.0
	MGB-1	Grit Blasting Unit	0.2 – 5.0
	RGB-4	Grit Blasting Unit	0.2 – 5.0
	MGB-4	Grit Blasting Unit	0.2 – 5.0
	MGB-3	Grit Blasting Unit	0.2 – 5.0
	AGB-3	Grit Blasting Unit	0.2 – 5.0
	RBG-3	Grit Blasting Unit	0.2 – 5.0
	MGB-2	Grit Blasting Unit	0.2 – 5.0

Emission Point ID	Dust Collector ID	Controlled Process	Pressure Drop Range (inches H ₂ O)
	AGB-4	Grit Blasting Unit	0.2 – 5.0
	AGB-5	Grit Blasting Unit	0.2 – 5.0
	MGB-5	Grit Blasting Unit	0.2 – 5.0
	AGB-6	Grit Blasting Unit	0.2 – 5.0
	RGB-5	Grit Blasting Unit	0.2 – 5.0
	DC-AGB-WJ	Grit Blasting Unit	0.2 – 5.0
	DC-MGB-6	Grit Blasting Unit	0.2 – 5.0
	DC-RGB-6	Grit Blasting Unit	0.2 – 5.0
	DC-AGB-7	Grit Blasting Unit	0.2 – 5.0
	DC-RGB-7	Grit Blasting Unit	0.2 – 5.0
	DC-RGB-8	Grit Blasting Unit	0.2 – 5.0
	DC-GB-23	Grit Blasting Unit	0.2 – 5.0
	DC-GB-24	Grit Blasting Unit	0.2 – 5.0
	DC-GB-25	Grit Blasting Unit	0.2 – 5.0
	DC-GB-26	Grit Blasting Unit	0.2 – 5.0
AA-002**	DC-HV001	HV Coat	**
	DC-HV002	HV Coat	**
AA-003	DC-EC005	EC Coat	0.2 – 5.0
	DC-EC006	EC Coat	0.2 – 5.0
	DC-EC008	EC Coat	0.2 – 5.0
	DC-EC010	EC Coat	0.2 – 5.0
	DC-EC011	EC Coat	0.2 – 5.0
	DC-EC012	EC Coat	0.2 – 5.0
	DC-EC013	EC Coat	0.2 – 5.0
AA-004	DC-SS001	SS Coat	0.2 – 5.0
AA-008**	DC-P001	P Coat	**
AA-009**	DC-HY001	HY Coat	**
AA-010	DC-S001	S Coat	0.2 – 5.0
	DC-S002	S Coat	0.2 – 5.0

** These units are subject to 40 CFR 63, Subpart WWWW, which requires the filter range be determined by the filter manufacturer's specifications.

Description of Items to be Inspected and Schedule of Inspection

PGT will complete weekly and semi-annual inspections of the dust collectors. The inspections will include the following:

Weekly Inspection Items

1. Record the differential pressure reading of the magnehelic or Photohelic gauge. If the gauge reading is outside the acceptable range shown in Table 1, implement the troubleshooting contingency and corrective actions provided in the Section titled "Troubleshooting Contingency and Corrective Action".

Semi-Annual Inspection Items

1. Check cleaning system components and compressed air system for system leaks. Repair or replace as required.
2. Check discharge hoppers for material buildup. Tap the hoppers and if a dull thud is heard, notify supervisor.
3. Listen for excessive noise from the fan which would indicate that the bearings or bushings are bad. Repair or replace as required.
4. Check for excess vibration from the fan system.
5. Visually check inlet and outlet duct work systems for leaks. Repair as required.
6. Visually check the collector housing for leaks. Repair as required.
7. Visually inspect after filter for material buildup. Replace as required.
8. Measure the pressure drop across the after-filter. Compared to manufacturers specifications. Replace as required.
9. Inspect the magnehelic/Photohelic gauge for plugging. Clean as required.
10. Inspect the magnehelic/Photohelic gauge for proper operation. Verify the accuracy of the gauge by measuring the pressure drop across the collector with an alternative gauge. Calibrate the gauge. Disconnect tubing from gauge and clean gauge tubing with compressed air. Repair or replace as required.
11. Measure the volumetric air flow to the collector. Compare to previous readings and rated fan capacity (if known). Repair or replace system components as required.

12. Record the date of the inspection, inspection activities and any troubleshooting or corrective actions to be taken as a result of the semi-annual inspection. A sample form has been included in Appendix A.

Troubleshooting Contingency and Corrective Actions

If the weekly pressure drop observed across the collectors is outside the normal operating range shown in Table 1, PGT will implement the following troubleshooting contingency and corrective actions, as needed.

Abnormal Pressure Readings

High Readings

1. Inspect the collector magnehelic gauge for proper operation. Verify the accuracy of the gauge by measuring the pressure drop across the collector with an alternative gauge. Disconnect tubing from gauge and clean the gauge tubing with compressed air. Reread the pressure drop across the collector. Repair or replace the magnehelic gauge as required.
2. Adjust cleaning system settings to increase pulsing and reduce pressure.
3. Check inlet and outlet ductwork systems for material buildup. Repair and clean as required.
4. Check cleaning system components (i.e., valves, couplings, pulse header, pulse pipes, solenoids, timer). Repair or replace as required.
5. Check compressed air system. Repair as required.
6. Visually inspect the filters of the collector for material bridging. Remove material buildup. Replace filters, as needed.

Low Readings

1. Inspect the collector magnehelic gauge for proper operation. Verify the accuracy of the gauge by measuring the pressure drop across the collector with an alternative gauge. Disconnect tubing from gauge and clean the gauge tubing with

compressed air. Reread the pressure drop across the collector. Repair or replace the manometric gauge as required.

2. Adjust cleaning system settings to decrease pulsing and build pressure.
3. Check plenum for leaks and wear. Repair as required.
4. Check access doors and hardware for leaks and wear. Repair as required.
5. Check inlet and outlet ductwork systems for leaks. Repair and clean as required.
6. Check the collector housing for leaks. Repair and clean as required.
7. Check filter seals at the tube sheet. Repair or replace as required.
8. Inspect the fan components (i.e., blades, belts, wheel, inlet and outlet doors) for leaks and wear. Replace or repair as required.
9. Conduct a leak test on the filters of the collector. Replace filters as needed.

EMERGENCY ENGINES AND GENERATORS

PGT shall maintain and inspect Diesel-Fired Emergency Generator No. 1 (EG-01), Diesel-Fired Emergency Generator No. 2 (EG-02), Diesel-Fired Emergency Fire Water Pump Engine No. 1 (FP-01), Natural Gas-Fired Emergency Generator No. 3 (EG-03), and Natural Gas-Fired Emergency Generator No. 4 (EG-04) in accordance with manufacturer recommendations and applicable permit requirements. Diesel-fired engines shall be maintained in accordance with applicable NSPS Subpart IIII and RICE MACT Subpart ZZZZ requirements. Natural gas-fired generators shall be maintained in accordance with applicable NSPS Subpart JJJJ requirements.

Monthly Recordkeeping Requirements

1. Record non-resettable hour meter readings
2. Record emergency operating hours, maintenance and readiness testing hours, and any non-emergency operating hours, including the reason for operation.
3. Verify emergency-engine designation has not changed.

4. Verify no prohibited non-emergency demand response or peak-shaving activities have occurred.
5. Inspect engine enclosure, controls, exhaust system, and associated equipment for visible deficiencies.
6. Review maintenance logs for completion of required preventive maintenance.
7. For diesel-fired engines, verify fuel records are maintained and fuel meets applicable specifications.

Annual Inspection Items

1. Verify manufacturer certification and/or Certificate of Conformity documentation is current and maintained on-site.
2. Verify maintenance activities have been completed in accordance with manufacturer recommendations.
3. Verify annual operating hour totals are calculated and retained.
4. Verify emergency and non-emergency operating hours have been documented and summarized.
5. Verify all required maintenance, inspection, fuel, and certification records are complete.

All engine and generator maintenance, operating hour, testing, fuel, certification, and inspection records shall be maintained for a minimum of five years.

Corrective Actions

If any engine or generator is found operating outside permit limitations or manufacturer requirements, corrective action shall be initiated immediately and documented. Operation shall be restricted until compliance is restored. Corrective actions, repairs, and follow-up inspections shall be documented and retained with maintenance records.

FEDERAL RULE APPLICABILITY

Thermal spraying and plating/polishing operations subject to 40 CFR Part 63 Subpart WWWW shall be operated and maintained according to manufacturer specifications and instructions. In any situation where the manufacturer's preventative maintenance instructions are more stringent than those identified in this plan, PGT shall follow the manufacturer's instructions.

Emergency Generator EG-01, EG-02, and Fire Pump FP-01 are emergency stationary compression ignition internal combustion engines subject to 40 CFR Part 60, Subpart IIII and 40 CFR Part 63, Subpart ZZZZ. Compliance is demonstrated through maintenance in accordance with manufacturer requirements, retention of engine certification documentation, fuel quality recordkeeping, operating hour recordkeeping, and documentation of emergency and non-emergency operation.

EG-01, EG-02, and FP-01 shall be operated only as emergency engines and maintained in accordance with manufacturer recommendations and applicable NSPS and NESHAP requirements.

Emergency Generator EG-03 and EG-04 are emergency stationary spark ignition internal combustion engines subject to 40 CFR Part 60, Subpart JJJJ. Compliance is demonstrated through maintenance in accordance with manufacturer requirements, retention of EPA certification documentation, operating hour recordkeeping, and documentation of emergency and non-emergency operation.

EG-03 and EG-04 shall be operated only as emergency engines and maintained in accordance with manufacturer recommendations and applicable NSPS requirements.

INVENTORY OF REPLACEMENT PARTS

The facility shall maintain, as available and appropriate:

- Replacement cartridge filters (MERV 16 or higher)
- Differential pressure gauges
- Gauge tubing
- Solenoid valves
- Pulse valves
- Fan belts
- Fan motors
- Bearings
- Compressed air system components
- Electrical control components
- Generator maintenance parts required by manufacturer schedules

If operation of any emission control device or emergency generator would result in noncompliance due to unavailable replacement parts, the affected process shall be shut down until repairs are completed.

APPENDIX A

Sample Semi-Annual Inspection Checklist

HAP MONITORING PLAN

APPENDIX B

HAP MONITORING PLAN

HAP MONITORING PLAN INTRODUCTION

PG Technologies LLC (PGT) has prepared this hazardous air pollutant (HAP) monitoring plan in order to satisfy Condition 5.4 of PGT's Air Permit Number 1360-00158. PGT has accepted synthetic minor limits in order to avoid being a major source under Section 112 of the Clean Air Act (CAA). Air Permit 1360-00158 limits facility-wide HAP emissions to nine (9) tons per year of a single HAP and 24 tons per year of all combined HAPs. The purpose of the HAP monitoring plan is to identify how the HAP emissions from the emission units will be estimated and how PGT intends to maintain records of the HAP emissions to demonstrate ongoing compliance with HAP emission limits.

HAP EMITTING PROCESSES

The emission units contributing to facility-wide HAP, and the specific HAPs associated with each, are listed below. HAP emissions from all other processes at the facility are negligible.

AA-002 - HV Coat (Thermal Spray Coating Operations) - (Nickel, Cobalt, Chromium)

AA-005 - VF Coat operation (VF001 through VF010) - (Chromium, Cobalt, Hydrogen Fluoride)

AA-007 - Mask Coat operation consisting of masking units N001 and N002 - (Methanol)

AA-008 - P Coat (Thermal Spray Coating Operations) - (Nickel, Cobalt, Chromium)

AA-009 - HY Coat (Thermal Spray Coating Operations) - (Nickel, Cobalt, Chromium)

AA-004 - SS Coat (Slurry Coating Operations) - (Nickel, Cobalt, Chromium)

AA-010 - S Coat (Wet Powder-Based Coating Operations) (Nickel, Cobalt, Chromium)

AA-012 - Stripping Operation consisting of units A-1 and A-2 (Hydrogen Fluoride, Hydrochloric Acid)

HAP emissions from the aforementioned emission units will directly correlate with the material usage rates in each of these processes. PGT will track material usage rates in order to estimate HAP emissions on a monthly basis. A 12-month rolling total will also be maintained to verify compliance with the synthetic minor limits. In lieu of using actual HAP composition data for each coating material, PGT may conservatively utilize the maximum HAP compositions included in the permit application. PGT will utilize the control device efficiencies identified in the permit application to estimate emission rates, when applicable.

HAP emissions from the Stripping Operation (AA-012) and VF Coat operation (AA-005: VF001 through VF010) are due to chemical reactions in the processes. The calculation for these processes will be based on the stoichiometry of the chemical reactions involved. Table 1 shows all assumed values that will be used to calculate HAP emissions on an ongoing basis.

TABLE 1
HAP Calculation Data

Air Permit Emission Point	Coater ID	Control Device ID	Parameter to Track Monthly	Emission Factor (lb/lb)	Nickel Content (%)	Chromium Content (%)	Cobalt Content (%)	Total HAP Content (%)	Control Efficiency
AA-002	HV001	DC-HV001	Coating Material Usage	0.63	50%	50%	50%	95%	99.70%
	HV002	DC-HV002	Coating Material Usage	0.63	50%	50%	50%	95%	99.70%
AA-008	P001	DC-P001	Coating Material Usage	0.63	50%	50%	50%	95%	99.70%
AA-0010	S001	DC-S001	Coating Material Usage	0.52	9%	16%	9%	45%	99.70%
	S002	DC-S002	Coating Material Usage	0.52	50%	50%	50%	95%	99.70%
AA-009	HY001	DC-HY001	Coating Material Usage	0.63	50%	50%	50%	95%	99.70%
AA-004	SS001	DC-SS001	Coating Material Usage	0.63	50%	50%	50%	95%	99.70%
AA-005	VF001-VF009	Wet Scrubber	Ingredient F Usage	HAP emissions calculated based on chemical reactions within process as detailed in permit application.					90.00%
AA-007	N001 and N002	N/A	Ingredient E Usage	1	0%	0%	0%	1.2% Methanol	0%
AA-012	Stripping Operation A-1 and A-2	N/A	Ingredient B Usage	HAP emissions calculated based on chemical reactions within process as detailed in permit application.					0.00%

Emission factors calculated as follows based on mass balances and emission calculations in the permit application:
Potential Emissions (lb/hr) / Potential Throughput (lb/hr)